

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND

UNITED STATES OF AMERICA

*

v.

*

Criminal Case No. RWT-07-0199

EARL WHITTLEY DAVIS

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* * * * *

REPLY TO GOVERNMENT'S RESPONSE TO MOTION TO
EXCLUDE DNA TEST RESULTS AND REQUEST FOR *DAUBERT* HEARING

Earl Davis, through undersigned counsel, respectfully files this reply to that portion of the government's Consolidated Response of the United States of America to Defendant's Pretrial Motions, pp. 52-67 (hereinafter "Response") addressing defendant's Motion to Exclude DNA Test Results And Request for *Daubert* Hearing (hereinafter "Motion").

The government begins its analysis with the observation that "the government does not have to prove their case twice-they do not have to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are *correct*, they only have to demonstrate by a preponderance of evidence that their opinions are reliable.'" (Response, p. 62, quoting *Maryland Casualty Co. v. Therm-O-Disc.*, 137 F. 3d 780, 783-84 (4th Cir. 1998) (emphasis in original). The government raises a red herring, as nowhere in his motion does Mr. Davis contend that the government must show that the assessments of the government's DNA experts are correct. The focus of the motion is on relevancy, reliability, and other rules of exclusion such as Rule 403, Rule 702, and Rule 901(b)(9). The *Daubert* Court clearly stated that the burden of proof on these admissibility issues lay with the proponent of the expert testimony and was set at the level of the preponderance standard. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 592 n. 10, 113 S. Ct. 2786, 125 L. Ed. 2d 469 ("These matters should be established by a preponderance of

proof.”). *See also*, *Cooper v. Smith & Nephew, Inc.*, 259 F.3d 194, 199 (4th Cir. 2001) (“The proponent of the testimony must establish its admissibility by a preponderance of proof.”); *Shreve v. Sears, Roebuck & Co.*, 166 F. Supp. 2d 378, 400 (D.Md. 2001) (same).

The government next emphasizes that the Court has “broad latitude...in deciding not only the ultimate reliability determination but also in *how* to make that determination”. (Response, p. 58) (emphasis in original). The government urges that in this case, despite the multiplicity and complexity of the issues raised by Mr. Davis, this latitude should be exercised in favor of denying Mr. Davis’ motion without conducting any evidentiary hearing whatsoever. (Response, p. 58- 60). The government asserts that no hearing is necessary here because “the lab report in this case notes that ‘[t]he DNA profiles reported below were determined by procedures which have been validated according to the Federal Bureau of Investigation’s Quality Assurance Standards for Forensic DNA Testing Laboratories.’” (Response, p. 55). The government says that “the specific testing methodology used in this case has been widely accepted as reliable under *Daubert* by numerous federal courts in several jurisdictions.” (Response, p. 60).

There are a number of problems with this argument. First, neither in the Response, nor in the lab reports, nor in the testimony of technician Julie Kempton attached to the Response as Exhibit H, nor in any affidavit filed with the Court¹ is there any description of the precise methodology employed in this case or its reliability, other than the boilerplate laboratory report language quoted above and the uninformative and vague general assertion that “the Prince George’s County DNA

¹ The government has promised a “supplemental affidavit” from relevant laboratory personnel. (Response, p. 65 n. 23). There has been no affidavit filed, supplementary or otherwise. Defendant hereby reserves the right to object to the timeliness of any such affidavit to be filed in the future, and to respond to the substance of any affidavit should the Court permit a late filing.

laboratory used PCR/STR typing to analyze the DNA in this case.” (Response, p. 55). “[T]he Fourth Circuit does not accept opinions from experts simply because the ‘expert says it is so.’” *Shreve v. Sears, Roebuck & Co.*, 166 F. Supp. 2d 378, 399 (D.Md. 2001), quoting *Alevromagiros v. Hechinger Co.*, 993 F.2d 417, 421 (4th Cir.1993). The fact that the lab reports in this case contain some boilerplate language asserting that certain validated procedures were followed is thus not determinative.

Second, as the Response itself concedes, “‘PCR (polymerase chain reaction) is not itself a method of DNA typing, but is instead a technique of sample preparation.’” (Response, p. 55, quoting *United States v. Morrow*, 374 F. Supp. 2d 51 (D.D. C. 2005). “STR” (short tandem repeat) is not itself a method of DNA typing either. *See United States v. Morrow*, 374 F. Supp. 2d at 58 (“A short tandem repeat (“STR”) is a tandem repeat in which the core base units are just a few base pairs.”). Rather, as the motion illustrates, any type of DNA analysis which employs PCR on short tandem repeat loci involves a multitude of complicated steps, procedures, and protocols which must be adhered to if the results are to be deemed reliable. (Motion, pp. 11- 30). *See, United States v. Morrow*, 374 F. Supp. 2d at 61 (“[T]he molecular technology [on which PCR is based] is thoroughly sound and...the results are highly reproducible *when appropriate quality-control methods are followed.*”) (emphasis added). As *Daubert* and *Kumho Tire* make clear, “the [trial court’s] gatekeeping inquiry must be ‘tied to the facts’ [and issues] of the particular ‘case.’” *Kumho Tire*, 526 U.S. at 150, 119 S.Ct. 1167 (quoting *Daubert*, 509 U.S. at 591, 113 S.Ct. 2786). Under *Kumho Tire*, “the specific issue before the court [is] not the reasonableness in general of a [methodology]. Rather, it [is] the reasonableness of using such an approach, along with [the expert’s] particular method of analyzing the data thereby obtained, to draw a conclusion regarding *the particular matter*

to which the expert testimony was directly relevant. *Kumho Tire*, 526 U.S. at 153 (emphasis in original). Under Rule 702, expert testimony is admissible only if it will “assist the trier of fact to understand the evidence or to determine a fact in issue” and , further, only if: “(1) the testimony is based on sufficient facts or data, (2) the testimony is the product of *reliable* principles and methods, and (3) *the witness has applied the principles and methods reliably to the facts of the case.*” These rules call for fact specific inquiry and are not satisfied by the government’s vague averments as to methodology in this case.

Third, the government cites *United States v. Morrow*, 374 F. Supp. 2d 51 (D.D.C. 2005) as authority for denying a hearing in this case, claiming that in that case the court denied a hearing even though the defendants were “challenging the PCR/STR typing used by the government and the resulting DNA evidence with relatively low statistical evidence.” (Response, p. 59). The government contends that “[w]hile the district court did not foreclose the potential for a future hearing, the court found that a future hearing was not necessary to resolve the defendants’ generalized challenge to the PCR/STR typing and claims that DNA matches with relatively low statistical values must be excluded under *Daubert* or Rule 403.” (Response, p. 59).

The government has mischaracterized the holding in *Morrow*, which actually supports Mr. Davis’ request for an evidentiary hearing. In *Morrow*, there was no “generalized challenge to the PCR/STR typing,” which was performed by the FBI Laboratory, a fully accredited laboratory. *See* 374 F. Supp. 2d at 54 (“Defendants have argued that ‘it is clear that some of the government’s proffered DNA reports are of marginal significance.’”); *Id.* at 61 (“Moreover, none of the Defendants have argued to date that PCR/STR testing is not generally reliable.”). There was thus no need to conduct an evidentiary hearing in *Morrow* on what was essentially a legal argument about the

relevancy of the undisputed statistical showing. Here, by contrast, the DNA work was performed by an unaccredited laboratory, and that work raises several questions of reliability, including the use of a “low copy” technique², the use of questionable statistical techniques such as “source attribution” and the random match probability in a cold hit case, and other serious methodological flaws set forth at pages 111-143 of the Motion.

Even in *Morrow*, where no such challenges were mounted, the court ruled that “the admission of [PCR/STR] evidence will be contingent upon a showing by the government that the techniques, methods, and practices used in the testing in this case, as well as the expert’s qualifications, met with the generally accepted and established protocols.” 374 F. Supp. 2d at 62. The case in no way supports the government’s argument that an evidentiary hearing should not be conducted in this case.

² The government states that “throughout his brief, Defendant alleges-without citation or explanation that this is a ‘low copy case’ and thus by definition the DNA results are suspect.” (Response, p. 65). This statement is surprising in light of the fact that Mr. Davis has provided ample authority and analysis describing exactly how scientists define a low copy case, why it is that this case is in fact a low copy case, and why the low copy technique is unreliable. (Motion, pp. 13-19, 126-127). The government apparently concedes the unreliability of the technique, and argues only that it will establish that this is not a “low copy case” in a supplemental affidavit. As indicated above, no such affidavit has been filed.

The government also contends that defendant’s “assertion of low copy number testing is patently false because the very DNA samples cited above, linking the Defendant to the crime scene, were large enough so that they were not fully consumed by the testing process.” (Response, pp. 65). It is unclear what “DNA samples” the government is referencing. As indicated in the motion, the DNA extract tubes which showed low copy DNA were N6, N1b, N2d, BG1, and K3. (Motion, p. 16). As also indicated in the Motion, the analyst consumed 100% of the swab for samples N6, BG1, and K3, while it retained 50% of the swabs for samples N1b and N2d. (Motion, p. 13). For three of the five low copy samples there is no remaining swab to be tested. As to the other two samples, there is no reason to suppose that the remainder of the swab would yield any higher quantity of DNA than that in the extracted and tested portion of the swab.

The remainder of the government's Response is equally unpersuasive. The government asserts that "numerous federal courts have determined DNA evidence derived from PCR/STR typing is reliable and admissible." (Response, pp. 60). But, as Mr. Davis points out in his motion, none of these cases address the low copy, statistical, or other methodological issues raised in this case. (Motion, p. 51). The government concedes that "the Fourth Circuit has not considered the admissibility of PCR/STR typing under *Daubert*", and that "the Fourth Circuit has not considered the admissibility of PCR amplification using the 'Profiler Plus and Cofiler] kits..." (Response, pp. 62 n. 62, 63). It further concedes that Judge Luttig's concurring opinion in *Harvey v. Horan*, 285 F.3d 298 (4th Cir. 2002), a case that did not involve the admissibility of DNA evidence, is "obviously not dispositive." (*Id.* at p. 62 n. 20).

The government also contends that "the Defendant cannot seriously contest the relevancy of the DNA results in this case." (Response, p. 60). Mr. Davis does "seriously" challenge the relevancy of testimony about samples N1b, N2d, and K1C, as the government is offering testimony about these samples without supporting statistics. Defendant supports his relevancy objection with an abundance of authority and he also raises objections under Rules 403, 702, and 901(b)(9) to testimony about these and other samples, and to any testimony identifying Mr. Davis as the source of any DNA. The government's failure to address any of the cases and other authorities cited in support of these arguments is a concession that Mr. Davis' objections are meritorious.

Finally, the government contends that Mr. Davis' attack on the statistical methodology used in this cold hit case is precluded by *United States v. Jenkins*, 887 A.2d 1013 (D.C.2005), and *People v. Nelson*, 43 Cal.4th 1242, 78 Cal.Rptr.3d 69, 185 P.3d 49. *Nelson*, decided after Mr. Davis' motion was filed, simply follows *Jenkins*, and adds nothing new to the analysis of *Jenkins*. Neither

Jenkins nor *Nelson* is persuasive here, as both cases were decided under *Frye*, not *Daubert*. Moreover, as pointed out in Mr. Davis' motion at page 85, cases like *Jenkins* and *Nelson* ignore the scientific distinction between traditional "probable cause" cases and cold hit cases and have sidestepped a very complex scientific issue with the irrelevant observation that the use of the product rule to compute a random match probability is overwhelmingly accepted by the scientific community as a reliable means of demonstrating the rarity of a profile in the population. *See also*, 4 Faigman et al., Modern Scientific Evidence (2006)§ 32:11, p. 110 (criticizing *Jenkins*).

CONCLUSION

For all of the foregoing reasons, and those stated in the Motion, this Court should grant an evidentiary hearing in this matter and then rule that: (1) there is no reliable scientific basis for the government's proposed DNA testimony, and thus the testimony is inadmissible under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999); (2) the testimony is inadmissible under the 2000 amendments to Rule 702 in that (a) the testimony is not based upon sufficient facts or data, (b) the testimony is not the product of reliable principles and methods, and (c) the government's DNA technicians have not applied the principles and methods reliably to the facts of the case; (3) numerous statistical flaws render the DNA evidence in this case inadmissible under rules 402, 403, and 702, as well as under *Daubert* and the due process, fair trial, and cruel and unusual provisions of the Fifth, Sixth, and Eighth amendments to the Constitution; (4) the failure to apply reliable scientific procedure as outlined in numerous protocols renders any DNA test results inadmissible under Rule 702; and/or (5) Rule 901(b)(9) requires that an adequate foundation be laid before any of the government's computer generated DNA evidence is admitted into evidence.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 21st day of August, 2008, I electronically filed the foregoing Defense Reply to Government's Response to Motion to Exclude DNA Test Results and Request for *Daubert* Hearing with the Clerk of Court using the CM/ECF System and have mailed the foregoing document by First-Class Mail, postage prepaid, to the following non-registered CM/ECF user: Michael N. Burt, Esquire, Law Office of Michael N. Burt, 600 Townsend Street, Suite 329 E, San Francisco, California 94103.

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